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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,428	02/22/2002	Takashi Hiroi	501.41125CX1	7409
20457	7590	10/05/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			FERNANDEZ, KALIMAH	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/079,428	Applicant(s) HIROI ET AL.	
	Examiner Kalimah Fernandez	Art Unit 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 21 is objected to because of the following informalities: the misspelling of "same." Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

And

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the

prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat No 6,047,083 issued to Mizuno.

3. As per claims 1 and 8, Mizuno discloses an inspection means having a sensor to detect an image of a pattern formed on a specimen to be inspected (col.2, lines 16-25; col.3, lines 57-65) and a processor to process the detected image to extract a defect candidate of the pattern with its location information (col.6, lines 37-52); output means outputting an image of the detected defect candidate and data including location information of the defect candidate (col.4, lines 3-8; col.4, lines 36-40); information transfer means transferring information outputted from the output means (col.6, lines 36-52); store means storing information outputted from the output means and transferred by the information transfer means (col.6, lines 41-44); and processing means having a display screen and the processing means processes the information stored in the store means and displays the processed information on the display screen (col.6, lines 35-52).

4. As per claim 2, Mizuno discloses the processing means displays defect candidate location data on the display screen (col.4, lines 35-40; col.7, lines 18-30).
5. As per claim 3, Mizuno discloses the processing means displays an image of the defect candidate on the display screen (col.5, lines 23-51).
6. As per claim 4, Mizuno discloses the processing means displays a defect candidate location data in map format on the display screen (col. 4, lines 35-40).
7. As per claims 5 and 14, Mizuno discloses the processing means classifies the defect candidates stored in the store means and displays the classified defect candidates on the display screen (col.6, lines 33-35).
8. As per claim 6, Mizuno discloses the processing means displays the classified defect candidate image on the display screen (col.7, lines 18-30).
9. As per claims 7 and 15, Mizuno discloses the processing means displays the classified defect candidates in map format on the display screen (col.7, lines 18-30).
10. As per claim 9, Mizuno discloses the use of a laser-scanning microscope wherein the image-detecting unit detects optical image of the pattern (col.1, lines 10-15; col.1, lines 50-53).

11. As per claim 10, Mizuno discloses the image-detecting unit detects secondary electron image of the pattern (col.3, line 65- col.4, line 3).

12. As per claim 11, Mizuno discloses the defect candidate-extracting unit extracts a defect candidate image and its location information from the detected images (col.5, lines 19-51; col.8, lines 32-36).

13. As per claim 12, Mizuno discloses the defect candidate-extracting unit extracts a defect candidate from the detected images by comparing the detected images with reference images (col.5, lines 19-51).

14. Claims 18-22 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 6,539,106 issued to Gallarda et al.

15. Gallarda et al disclose defect candidate data processing unit for processing data of defect candidates including images of defect candidates which are detected by a detection machine and transferred through a communication line and stored in a memory (col.3, lines 40-55; col.5, lines 4-14); and display unit which displays a processed data of the defect candidate on a screen (col.5, lines 31-35), wherein said defect candidate data processing unit detect defects among the defect candidates by using a threshold value determined on the screen of the display unit (col.5, lines 35-40).

16. As per claim 19, Gallarda et al disclose the defect candidate-data processing unit classifies the defect candidate data and the display unit displays the classified defect candidate data on the screen (col.6, lines 29-35).

17. As per claims 20-21, Gallarda et al disclose display unit displays both an image of defect detected by the defect candidate-data-processing unit and a map, which indicates distribution of the detected defect on the substrate (col.6, lines 30-35).

18. As per claim 22, Gallarda et al disclose the display unit displays an image of defect, which is pointed out on the map displayed on the screen (col.5, lines 31-34).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 13 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno and US Pat No 6,539,106 issued to Gallarda et al.

21. In regards to claims 16-17, Mizuno discloses the claimed invention except for use of a threshold value.

22. However, Gallarda et al disclose the desirability of threshold value use (col.5, line 35- col.6, line 5).

23. It would have been obvious to an ordinary artisan at the time of the invention to combine Mizuno and Gallarda because Gallarda disclose the advantageous ability to distinguish mere nuisance defects and killer defects among other advantages (col.5, lines 45-49).

24. As per claim 13, Mizuno discloses the claimed invention except for a computer network. However, Gallarda teach the outputting unit and the data-storing unit are connected by a network (col.5, lines 26-29). It would have been obvious to an artisan having ordinary skill at the time of the invention to incorporate Gallarda into Mizuno because Gallarda teaches improved memory capacity (col.5, lines 26-34).

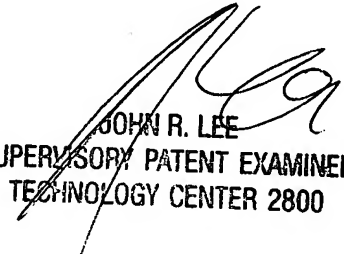
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2470. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri.9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KF


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